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DECEMBER 1960
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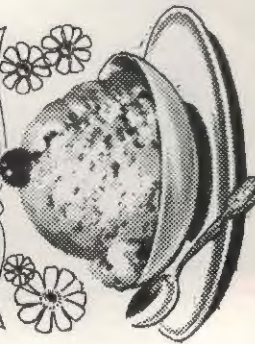
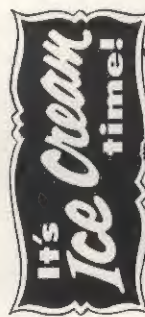
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The Indianapolis Radio Club meets on the 2nd and 4th Friday of each month at the Indianapolis Park Board Building located at 29th and Harding Streets. Meetings start promptly at 8:00 P.M. Indianapolis time.

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Ama-Chewer is published monthly by and for I.R.C. and all Amateurs in this area. Non-Members of I.R.C. may subscribe at the rate of \$1.00 per year.

Publication is on the 3rd Friday of each month, with all news items and ads due no later than the 1st Friday of each month.

Ham-Ads (5 line limit) are free to members and subscribers. Others may use this facility at the rate of 50 cents per ad.

Ama-Chewer welcomes the forwarding of information on coming events of other clubs in the area for publication in the program section.

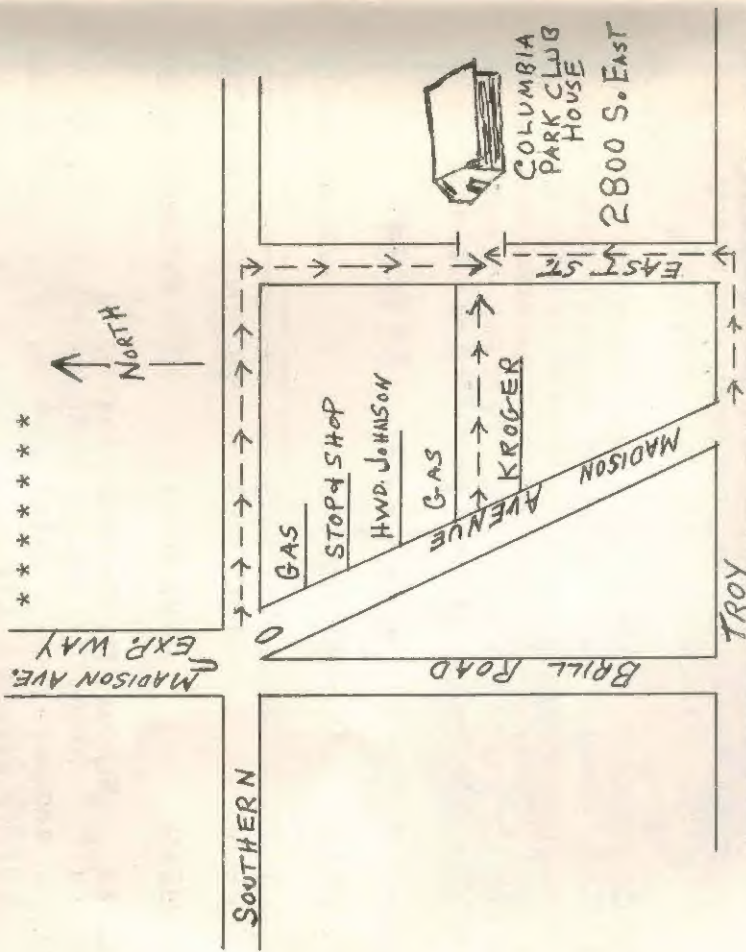
PROGRAM SCHEDULE

January 13th Regular Business Meeting and Installation of the 1961 IRC Officers. Everyone turn out and welcome the new crew into office.

January 19th Area Wide Ham Gear Swap and Auction at the Columbia Park Field House. Swap begins at 8:00 P.M. and the Auction at 8:30 P.M. Free Refreshments. Sponsored by the Allison Amateur Radio Club. Columbia Park Club House address is 2800 S. East Street. See map below for street directions.

January 27th Program night, with some interesting facts which will be announced in the January issue.

February 10th Regular Business Meeting.



MERRY CHRISTMAS AND A HAPPY NEW YEAR
TO ALL THE GANG AT I.R.C. FROM THE
AMA-CHEWER STAFF, AND MAY THE
COMING YEAR BRING YOU AND
YOURS MUCH HAPPINESS

I.R.C. HIGHLIGHTS OF 1960

Looking back over the year we find that the following events were high on the IRC calendar, so we thought you might like to join us in a review.

January-Frank Fitch photographed new officers for the Ama-Chewer cover. Eye-ball QSO project inaugurated. D. J. Angus installed new officers, giving a brief past history of each. (What a shock this was.) Jerry Todd presented the "Toroid" for the IRC gang.

February-Start of soliciting help for blind school project. Dr. Rosenbaum explained how amateur radio would be of help to the blind students. Bob Kryter presented a program and film on "Space, Sputniks and You."

March-Dick Judkins made a talk on transistors, their design and use. D. J. Angus spoke on diodes, semi-conductors & their use. Everyone hot on the trail of Brownie Points.

April-Brownie Point winner was Bob Spannuth, K9BSU. Home brew night a big success with Cliff Singer, W9SWD walking off with the prize. Cliff Singer presented an interesting program on RTTY.

May-Bill Konold, W9UQV discussed and demonstrated his automatic key. Indiana Fair Grounds selected as Field Day site. Swap & Shop night and man oh man did we have a turn out this year.

June-Fred Manning described his cubicle quad, including movies of the construction. Rolly Boughton, W9PMM, convinced all that SSB was here to stay. Field Day, the fund, laughs and aching backs that followed.

July-August-Vacation time for IRC, with everyone getting his or her share of sunburn, bug bites and a choosen few getting their fish.

September-Decided to issue new local directory. The ARRL Convention at the Claypool Hotel. Bob Atherton gave a talk on transistors.

October-Nominating committee to start election slate. Bob Brockway of WFBM gave a talk on television cameras. Plans made to continue classes at blind school.

November-Antenna erected at blind school. Five slates for December election were filed.

December-See this issue and we hope all the rest that will follow during the coming year. If we left someone out blame it on our memory as we ain't as young as some of you wipper-snappers.

UNCLE! UNCLE! UNCLE!

Now we know how it feels to be on the receiving end of

"Letters to the Editor."

Now we know that we should check everything turned over to the printer.

Now we know that we should never attach notes to the proof copy.

Now we know that we should destroy anything we don't want to print, as we are liable to get a mix up in the data.

Now we know that people read the Ama-Chewer and that Amateurs are on guard against violations of FCC regulations.

Last month we received a news item requesting a phone patch for an exchange student from Holland which jolted the old DX Hound we have for a manager. It jolted him so much, he sent it along to the Editor as an example of what not to print.

The Editor after being properly shocked, layed the article aside and went on with the preperation of the November issue. As is the custom, he attached several odds and ends of news to the proof copy and sent it along to the Publisher.

The Publisher like a real news hawk, prints whats typed for him and reads the paper after it is mailed, so he didn't catch it either.

SO-----the day the mailman drops off the Ama-Chewer the phone began to ring and didn't stop for hours. In fact it reached the point where we were afraid to answer. With this day over we felt we had weathered the storm, but lo and behold the mail started coming in and we caught you know what from everyone, including our out of state readers.

For the record we would like to say that third party traffic is NOT permitted to Holland and that you read the latest issue of QST if you have any doubts.

With our heads bowed in shame, we again say "Uncle" and promise to watch it from here on out. Boy oh Boy those whips sure do smart.

* * * * *

CALL LETTER LICENSE PLATES

A call to Mr. C. Bemmish at the Auto License Div.; shows that 1171 hams have made application for Call Letter Plates. If your application was sent in on time you should have received your card by now and your plates are waiting for you. Last year there were a total of 1227 plates issued which makes a @#\$% of the Amateurs in Indiana.



"GOBLIN PATROL"

Early in October, I received a telephone call from our friend, K9LZJ, Hank Wolfla. Hank advised me that he had been contacted by some of the law enforcement officer in his neighborhood with the question of the possibility of setting up roving radio patrols for the purpose of spotting vandalism & trouble developing due to the usual Halloween activity. I assured Hank that I would lend all the assistance possible in my capacity as a Communications Officer of Civil Defense.

As a result of that conversation, Hank arranged a meeting with the interested officers, myself, and several amateurs who were interested in taking part in the project.

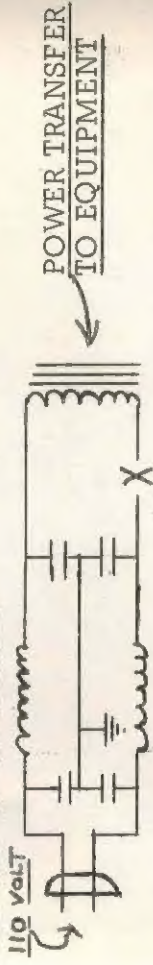
With Hank appointed as special officer for the project, he went ahead with his plans and arranged the patrols in Williams Creek, Rocky Ripple, Meridian Hills and Ravenswood. Control headquarters for the complete operation was set up in the Nora Fire Station, where they had access to the two way radio of the Sheriffs' Department.

The operation used the six meter mobile facilities of the following amateurs: (See photo above)

L. to R. in photo: Fred Nichols, K9ZHR; Kirk Wilson, W9AVT; D. J. McVicker, W9JZV; Hank Wolfla, K9LZJ; Lee Easley, K9QDR; Don Litwiler, W9MHP and Howdy Wilcox, K9MXI. Not shown in photo: George McClellan, K9TDC; Dave Stuart, K9OFG; Charles Schreiber, K9VPE; Stewart Maxwell, K9SVA

Last month we considered the aspect of safety with respect to protecting the antenna and radio equipment from lightning. These considerations also protect the operator to a degree, but there is danger in another area that the operator risks everytime he operates the rig.

Have you ever sat down in front of the rig and reached for the knob to turn the equipment on and touched some of the metal parts of the gear and felt your fingers tickled by what you thought was stray voltage? You were right about "stray" and here is the reason.



As you will notice from the diagram, most of the power inputs to most commercial gear have built-in noise and RF filters. Because the manufacturer can't know which way you will insert the plug in the 110 volt line, he can't ground one side of the line. This is also prevented by a ruling of the National Board of Safety Underwriters. So the manufacturer installs a balanced filter which puts the frame of the equipment at about sixty volts with respect to either side of the line. Now conditions are right for that occasional shock or tickle.

What is the cure?

GROUND THE EQUIPMENT!!!

Proper grounding of the frames of all equipment you have in the shack, both to each other and to a good water pipe or driven ground rod could save your life.

Lets look at the diagram again. Suppose one of those bypass capacitors from one side of the line developes a short and that happened to be the HOT side of the line. Now the chassis is at full line voltage above ground. Anyone in his right mind wouldn't take the chance.

If the gear was grounded, a fuse would have blown and you would have known something had gone wrong in the power circuit.

So..... "Switch To Safety" with properly grounded gear.

DOPEY DILDOKK SAYS

I'm really a smart amateur, but there ain't been anybody smart enough to figure out just what smart things I have done, which makes me as smart as I think I am.

November 1940 found the IRC preparing to elect officers for the coming year. A nominating committee consisting of Pete Jennings, Charles Tevebough and Art Schultz was appointed by the President, Don Davis, W9JYP.

Noble Burkhardt, W9QG; announced that he was leaving Indianapolis at the end of the year to take employment in Lafayette with the Duncan Meter Co. where he is now manager.

Art Schultz presented a program "An Insight Into Mechanical Refrigeration." Wade Kingery and Pete Jennings teamed up to direct a program "Automatic Voltage Regulation In Power Supplies."

A code school was announced to start in January of 1941, and Paul (Prof.) Nelson, W9BHC was to conduct the class.

Writing about Nelson, we wonder why he doesn't get down to club anymore. Ama-Chewer was also reporting that his car "Sitting Calf" had suffered the loss of a fender and that the XYL Dorothy had been shaken up a bit in an accident.

Nelson Trusler announced that the club membership as of November 1st was 74% licensed, 15% to be working on their ticket and 11% being inactive.

LeRoy Waggoner, W9YMW reported in as a new member and he is another old timer we would like to see at club again.

Out-going officers for 1940 were in addition to W9JYP, Vice-Pres. Bob Caskey, W9DNQ; Treasurer Noble Burkhardt, W9QG; Secretary Tiny Anderson, W9GVW; Chief Op. Fred Manning, W9VPN; 1st Director Glenn Montgomery, W9HUD; 2nd Director Arnold Dickmeyer, W9JPX.

Bob Caskey, W9DNQ was reported as conducting quiz programs in a manner similar to spelling bees and the Ama-Chewer further notes that the club library was a popular place after such programs as the boys didn't want to get tripped up on "that" question again. (The club was meeting in the Insley Building and had a ham shack library.)

Norris Knowsall, reporting in the Ama-Chewer covered the 1940 Central Division Convention that was held on September 28 & 29 of that year.

GET ON YOUR WALKING SHOES

Arrangements are being made to start factory tours in and around the Indianapolis area, in a manner similar to those of a few years back. The fellows working on this are thinking in terms of the 3rd Friday of the month, although this is not definite as yet. (We hear that something is cookin' for a bus trip to Kokomo. Ed.)

continued from page 5.

Arthur Niccum, K9LQW; Richard Andrews, K9SVB; David Charpie, W9VRH; Bob Osterhous, W9PSE; George Lone, K9CBY and Al Minnick, K9SUW.

In order to maintain contact with the town marshal of Rocky Ripple, a six meter rig was temporarily installed in the marshals' car and one of the amateurs rode with him. Contact with the other police officers cars was maintained by relay from the base station in the fire house.

The cooperating police officers in this operation were: Richard Parker in Williams Creek, Mr. Raddler in Rocky Ripple, Jack Sanders in Meridian Hills and Ray Burgonfts in Ravenswood.

This operation naturally drew the disfavor of the few toward whom it was directed for control and as a result Hank was exposed to some rather bad threats and uneasiness. These same people tagged the operation with the name we like best "Goblin Patrol."

As Deputy Director of Communications, Amateur and Citizens Band Radio and at the direction of the Director, Indianapolis and Marion County Office of Civil Defense, it was my privilege and pleasure to recommend the above amateurs for Citations of outstanding achievement. These Citations were presented at the regular meeting of the Indianapolis Radio Club December 9th.

It has been my responsibility to hold the appointment of Deputy Director of Communications, Indianapolis and Marion County Office of Civil Defense for the past four years and everytime that special or emergency communications are needed in support of any Civil Defense operation, the way that the Amateur Radio Operators turn out with their equipment, makes me proud and glad to hold the position I hold for them. Without the help and co-operation of the amateur radio operators and their equipment, much of the operation of Civil Defense emergency communication could not be carried on.

Doyal J. McVicker, W9JZV

HAM ADS

Wanted--BC-459--Will take it in new or unmodified cond. or modified if it is already on 20 meters.

Alvey Pittman, W9JJC
AX 1-9252

Wanted--A Merry Christmas for all the gang at IRC and their families and may the old bearded gent load your stockings with "goodies."

Ama-Chewer Staff-W9JP

BLIND SCHOOL AMATEUR REPORT

Four novices at the blind school, who passed their exams, late last Spring are attempting to operate from the station at the school, but the antenna just won't load up. Bob Osterhous W9PSE built up a tuning unit, but it still won't load. Help--- Help.

A new volunteer has been a real help in the two weeks that he has been with us at the school. In the past two weeks this man has gone out to the school regularly, purchased a slate and stylus and learned to print Braille; further he has, by means of a sewing machine, made four copies of the diagrams needed for the questions in the manual, so that these blind operators can get a better idea of what the circuit looks like. A mighty big thanks to James Rees, Kn9YKH for his fine effort.

We had hoped to start another class for Novices as well as a General class but several who helped last year are unable to take a teaching assignment, and we haven't had enough volunteers, so at present we are concentrating on trying to get the four Novices into position for a General class ticket try, sometime this coming Spring.

Last week the school received a complimentary copy of the only electronic magazine put out in Braille, which is published by Bob Gunderson, W2JJO who is blind himself. You will remember he was awarded the 1955 G.E. sponsored "Edison Radio Amateur Award." The Braille edition of this magazine is \$7.00 per year and the talking book version is \$10.00 per year, both published under the "Braille Technical Press, Inc." (Do you suppose any of our readers might take the hint??? Ed.)

HOT OFF THE GRIDDLE

By the time this edition reaches your QTH the red hot copies of the Indianapolis Area Directories will have rolled off the press and we will be waiting for the ink to dry. Those of you who have already sent in your \$1.00 will be receiving them in the mail. (You may already have them if Pat fanned the ink. Ed.)

It's a classy deal with plastic hinges that allows the unit to lay flat when open, and it will have 911 calls with an alphabetical index by last name. You just can't be without this item, so get your orders in now! Send \$1.00 to Pat Husk, K9EUQ, 2223 East 74th Street, Indianapolis 20, Ind. to reserve your copy of the directory. Make all checks payable to the Indianapolis Radio Club, Inc.

GRAHAMS SPECIALS OF THE MONTH

Gonset Communicator III.....	\$195.00
Viking Ranger/.....	\$197.50
R.E.M. HF 110-20.....	\$ 37.50
Gonset G.S.B.-100.....	\$385.00
Johnson Courier.....	\$184.50
Johnson Pacemaker.....	\$295.00
Drake 1-A.....	\$189.50
Gonset Mobile Twins, G66-B & G77 w/DC power.....	\$339.50
Heath S.B.-10.....	\$ 91.50

PLUS MANY MORE - SEE FOR YOURSELF - BUYS

GOOD NEWS FOR INDIANA AMATEURS

The IRCC monthly issue of the Bison has returned to the scene, which will be good news to the gang around the state. The subscription rate is \$1.25 per year and we think you will find it well worth it, when you have coverage of the state news and the technical info. from many sources around Hoosierland. We recommend it as a must for all active hams.

CHANCE TO SAVE ON NEXT SUBSCRIPTION

Arrangements have been made for our members to obtain subscriptions to CQ at the reduced rate of \$4.30.

Membership in the A.R.R.L. and the benefits of QST can also be obtained for \$4.30 per year. Contact Pat Husk, K9EUQ, the money keeper of I.R.C., and he will take care of your reading and membership needs.

1961 DUES

A reminder-----1961 dues are due for a lot of our members and Pat Husk will take pennies, nickles, dimes, quarters, half dollars and bills. He will even take personal checks providing you send along your transmitter as security.

To those members whos' dues come due during the year, you will at that time pay only the portion which will pay you up to December 31, 1961.

The idea here is to get all members on the same basis, which will make it easier on the bookkeeper and money grabber. In a like manner new members will be billed on portions of the year after acceptance.

PROGRAM REVIEW

Friday, November 25th a record attendance was present to hear D. J. Angus, W9CYQ, President-retired of Esterline-Angus Co. give a program on electrical meters.

D. J. began by showing how a simple galvanometer consists essentially of a magnetic needle suspended within a coil which is free to swing over the face of a graduated dial. This magnetic needle is deflected when influenced by an electromagnetic field and was first determined by Oersted. The first meters for RF measurement consisted of combinations of wires, through which one wire carried the current & due to expansion caused a needle to move. This was then compensated for room temperature by a bi-metal strip. This type meter was commonly used on spark-gap type transmitters.

The D'Arsonval type meter used for most DC measurements are of the permanent-magnet moving coil type instrument. The air gap between coil & magnet is kept as small as possible. The coil is held at each end by jeweled bearings and hair springs; one wound each way to balance any temp. difference which would tend to cause the needle to move. The hair spring also serves to bring current to the moving coil. In this meter the turning force is proportional to the current and thus the meter scale is uniform and has equally spaced divisions.

Larger currents are measured by using a shunt across the meter, therefore the meter reading is proportional to the larger current, while only a small portion actually goes through the hair springs to the moving coil. 100 MV is a standard voltage to give full scale deflection and thus a 1000 Amp. shunt would be calibrated to give this 100 MV and provide full scale reading. A 50 MV F.S. reading is common for regular indicating meters, but the 100 MV is for the recording type instrument.

For voltage measurement a series resistance is added to the above D'Arsonval meter so a certain voltage gives F.S. deflection and thus limits the current through the meter to 1 ma or whatever the basic meter current F.S. value.

To change a volt meter scale or adapt to a different range it is usually not possible to measure Coil resistance with an ohm meter as it might damage a sensitive meter. Therefore D. J. explained that by a test set up, apply voltage to the meter to make it read full scale. Then insert resistance into the circuit and adjust it to provide half scale reading. This resistance is now equal to resistance of meter and now you can measure it directly with ohm meter or bridge method. With this value of resistance the meter can now be made to

(continued on page 12)

read any range by proper figuring of the series resistance. If voltages above 1500 volts are measured this usually requires a separate box for the series resistor, similar to the external shunt for an ammeter.

An A.C. Dynamometer ma. meter consists of 2 stationary coils and a moving coil with the same current flowing through all three. This meter is free of wave form errors and relatively free of frequency errors to a point. The force on the moving coil of this meter is proportional to the square of the current. According to the books the moving element deflects proportional to the average of the instantaneous torques because the coil has sufficient inertia to prevent it from responding to the instantaneous variation. Hence, the coil assumes a position corresponding to the average square of the instantaneous current. If a suitable square root scale is placed under the pointer, the meter will show the square root of the average of the squared currents or effective value of the current through the coils. In other words it shows the R.M.S. or root mean square current.

A more common A.C. volt meter is the rectifier type which uses a D'Arsonval type movement after the rectifier and a scale calibrated accordingly. This meter is good only for the wave form which the scale is calibrated. D. J. reminded us of several things to keep in mind on A.C. measurements:

1. Current lags voltage in an inductive circuit.
2. Current leads voltage in a capacitive circuit.
3. The A. C. Dynamometer requires much more power from the circuit measured than D. C. types.
4. For chart type meters, 100 times torque is required to maintain 1% accuracy.

Angus answered questions after his talk and we are sure all who attended went away with a little better understanding of meters and enough interest to look up any questions in the many reference books. As Angus said, "It's all in the books." The ever famous story of ink for graphic meters was told by D. J. and as he said the two barrels they make a week would make a #¢&* of a long line.

PRESIDENTS FREQUENCY

They didn't leave me much space this month, however in a few lines allotted I wish to thank each of you for the splendid cooperation given me and your Directors during 1960. Like other years, this one seems to be better than the last, and the next one promises to be even better than the fast fading and slightly worn 1960.

Remember that IRC is your club and it will grow & prosper only if you are active. Merry Christmas to you and yours.

Alvey Pittman, W9JJC

THE SPIRIT OF AMATEUR RADIO HASN'T CHANGED

Last month while making phone calls during the follow-up for the directory questionnaire, we talked to an old-timer P. R. Kennedy, W9AKP. He's inactive now and during the conversation he mentioned he had some gear lying around which he would pass along to some young Amateur, if we knew of anyone who might want it.

A call to George Lone and Jerry Bramblett sent several members of the Tech. Radio Club sailing out to his home. W9AKP loaded them down after which they went home to split the loot. If you have ever had this happen to you, you know just how much interest can be generated over a box of FREE gear.

Alvey told us how he received a basket full of coils and condensers back in 1922 and how he thought that was the biggest bunch of pretty green wire he had ever seen. (60 minus 22 equals 38---come on Pitt, are you that old? Ed.)

The point here is, if you have any surplus gear or items one stage above the junk box, why not pass some of it along to a youngster who will spend hours inspecting and salvaging parts and getting an education at the same time.

Thanks AKP for helping the younger of the gang.

ALL IS NOT WORK

C
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D

(Ye Ole Publisher lost the picture)

All is not work at a Directors meeting, as can be seen from the above photo taken at the QTH of Bert Brouse, K9JSF. Bert is serving the goodies prepared by the XYL and we are sure you can recognize the chow-hounds in action.

OUR COVER

'Twas the night before Christmas and all over the scope,
Not a signal was stirring in spite of my hope.
The antenna was strung from the towers with care,
In hopes that some DX soon would be there.

The kids were all snuggled deep in their beds,
As I wrote up the log from the morning skeds.
Ma with her TV and I in the shack,
Were nibbling around on a late evening snack.

When out of the speaker there rose such a clatter,
I flipped on the filter to see what was the matter.
The tuner was adjusted as quick as a flash,
So I could better pick out the dot from the dash.

The noise on a null at a near perfect low,
Gave the signal a sharpness like bells in a row.
When what to my wondering ears did I hear,
But KC4 strong, loud and clear.

With his electronic bug so lively and quick,
I knew in a moment it wasn't a trick.
More rapid than eagles his signals they came,
As he alerted the gang, calling all by name.

DX-Chicago-Dallas and Fort Wayne,
California-Nevada-Rhode Island and Maine.
To rigs in the basement and rigs in the hall,
Now standby-standby, standby all.

As dry leaves that before the wild hurricane fly,
Came the dots and the dashes from the southern sky.
While up to the north these signals I knew,
Were word of the departure of St. Nick and his crew.

Then came a signal full of power, no spoof,
It near bent the antenna clean off of my roof.
Australia was calling the whole world around,
St. Nick had just passed them, still north bound.

(con't. on page 15)

I imagined him in fur from his head to his foot,
And the wrapped gear in his pack protected from soot.
As I wished that the loot he had flung on his back,
Contained some new gear for my old AM shack.

Florida borke in with a voice gay and merry,
Rudolphs nose was lit like he had been in the sherry.
And that after making a stop, St. Nick had to go,
With red nose in front and the sleigh in tow.

I suddenly bit on my pipe with my teeth,
For I thought I saw him beyond the window wreath.
Sure enough it was him and his little round belly,
That shook when he laughed like a bowl full of jelly.

Into the shack he came, a right jolly old elf,
Explaining his mobile was dead, beyond fixing himself.
So I turned to the bench some ham magic to spread,
While the old boy sat down to check out his sked.

I spoke not a word but went on with my work,
Till the old boys rig really started to perk.
And after tuning it up, till it was right on the nose,
He took his rig with a nod, and up the chimney he rose.

The Christmas gear he had left caused me to whistle,
As away he flew like the down of a thistle.
But I copied his mobile as he drove out of sight,
Merry Christmas to all, 73, and goodnight.

* * * * *

BURNING THE NITE OIL

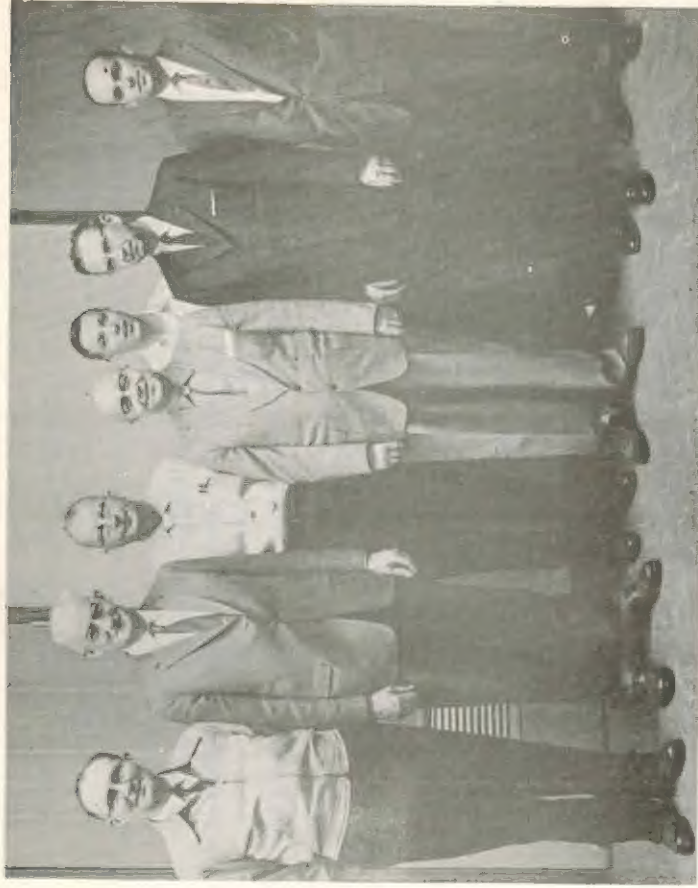
John Jones, W9FZW is teaching a Commercial Class radio course at Indianapolis Tech, night school. Classes are being held on Tuesday and Thursday nights, and we understand that John is finding it an easy task to keep a full enrollment. We also understand that it is as much the teacher as the course that is making it a big success. A tip of the lid to you John on a fine job.

* * * * *

TECH RADIO

We have word from the Tech. High Radio Club that they now have 24 members and that 12 of them are carrying tickets W9HFQ has been the starting station of many amateurs and it

ELECTION OF OFFICERS



On Friday, December 9th the club held its regular annual election of officers at the business meeting. In all, five slates of candidates were submitted.

After the usual reading of the parts of the Club Constitution governing the election of officers and the few requests for withdrawals by nominees, the balloting got under way. After the voting had been completed and ballots counted it was found that the following had been elected to serve as officers for the coming year:

President-Bert Brouse, K9JSF; Vice-President-Jerry Lucas, W9APJ; Secretary-O. Lee Easley, K9QDR; Treasurer-Pat Husk, K9EUQ; Chief Op.-Fritz Manning, W9VPN; 1st Director-Alvey Pittman, W9JJC; 2nd Director-Doyal McVicker, W9JZV.

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